6.4 Factoring Special Products

1. types of problems
2. Perfect Square Trinomials

a2 + 2ab + b2 = (a + b)2

a2 - 2ab + b2 = (a - b)2

1. Difference of Squares

a2 - b2 = (a + b)(a – b)

1. Sum of Cubes

a3 + b3 = (a +b) (a2 – ab + b2)

1. Difference of Cubes

a3 - b3 = (a - b) (a2 + ab + b2)

* Learn to recognize perfect square and perfect cube numbers.
* Variables are perfect squares if they are raised to an even power: x2, x4, x6 . . .
* Variables are perfect cubes if they are raised to a power that is a multiple of 3: x3, x6, x9 . . .